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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **U'Ren, Gregory D.**

Art Unit: 2814

Serial No.: 10/054,438

Examiner: Pham, Long

Filed: January 22, 2002

**For: Independent Control of  
Polycrystalline Silicon-Germanium in an  
HBT and Related Structure**

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

This is an Appeal from the Examiner's Final Rejection of claims 18-22, 24-40, and 42-45. The Final Rejection issued on March 14, 2006. The Notice of Appeal was filed in the U.S. Patent and Trademark Office on July 3, 2006.

09/07/2006 WASFAW1 00000052 10054438

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**REAL PARTY IN INTEREST**

The real party in interest is Newport Fab, LLC dba Jazz Semiconductor.

**RELATED APPEALS AND INTERFERENCES**

There are no related Appeals or Interferences.

**STATUS OF CLAIMS**

Claims 18-47 are pending, and claims 1-17 were canceled in previous amendments. Claims 18-22, 24-40, and 42-45 have been finally rejected and claims 23 and 41 have been objected to in a Final Rejection dated March 14, 2006. Claims 46 and 47 have been allowed. This Appeal is directed to the rejection of claims 18-45. Claims 18-45 appear in an Appendix to this Appeal Brief.

**STATUS OF AMENDMENTS**

No claim amendments have been entered after issuance of the Final Rejection of March 14, 2006.

**SUMMARY OF CLAIMED SUBJECT MATTER****A. Claim 18**

Independent claim 18 defines a structure (e.g., structure 100 in Figure 1) including a collector (e.g., collector 104 in Figure 1) comprising a single crystal silicon. *See*, e.g., page 8, lines 19-20 of Figure 1. The structure (e.g., structure 100 in Figure 1) further includes a base (e.g., base 120 in Figure 1) comprising kinetically controlled growth mode single crystal silicon-germanium, where the base (e.g., base 120 in Figure 1) is grown at a first temperature and a first pressure of a precursor gas. *See*, e.g., page 21, lines 3-5 and Figure 3 of the present application. The base (e.g., base 120 in Figure 1) and collector (e.g., collector 104 in Figure 1) form a base-collector junction. The structure (e.g., structure 100 in Figure 1) further includes an emitter (e.g., emitter 130 in Figure 1) comprising polycrystalline silicon, where the emitter (e.g., emitter 130 in Figure 1) and the base (e.g., base 120 in Figure 1) form a base-emitter junction. *See*, e.g., page 9, lines 5-6 and Figure 1 of the present application.

The structure (e.g., structure 100 in Figure 1) further includes a base contact (e.g., base contact 121 in Figure 1) in electrical contact with the base (e.g., base 120 in Figure 1). The base contact (e.g., base contact 121 in Figure 1) is situated over and in contact with a silicon oxide structure (e.g., silicon oxide structures 110 in Figure 1), where the silicon oxide structure is situated in a substrate (e.g., silicon substrate 101 in Figure 1). The base contact (e.g., base contact 121 in Figure 1) comprises mass controlled growth mode polycrystalline silicon-germanium and is grown at the same first pressure and first

temperature of the precursor gas that was utilized to form the single crystal silicon-germanium base in a kinetically controlled growth mode. *See*, e.g., page 20, lines 4-13, page 21, lines 10-12 and Figures 1 and 3 of the present application. The base contact (e.g., base contact 121 in Figure 1) and the base (e.g., base 120 in Figure 1) are characterized by a controlled deposition ratio which provides a base contact deposition rate that is higher than a base deposition rate so as to cause a base contact thickness to be greater than a base thickness, thereby reducing the resistance of the base contact (e.g., base contact 121 in Figure 1). *See*, e.g., page 23, lines 8-11 and 14-22, page 24, lines 1-4, and Figures 1 and 3 of the present application.

**B. Claim 25**

Independent claim 25 defines a structure (e.g., structure 100 in Figure 1) including a single crystal region (e.g., base 120 in Figure 1) situated over a first area. *See*, e.g., page 9, lines 3-5 and Figure 1 of the present application. The single crystal region comprises kinetically controlled growth mode single crystal silicon and is grown at a first temperature and a first pressure of a precursor gas. *See*, e.g., page 21, lines 10-17 and Figures 1 of the present application. The structure (e.g., structure 100 in Figure 1) further includes a polycrystalline region (e.g., base contact 121 in Figure 1) situated over and in contact with a second area. The polycrystalline region (e.g., base contact 121 in Figure 1) comprises mass controlled growth mode polycrystalline silicon and is grown at the first temperature and the first pressure concurrently with the single crystal region (e.g., base

120 in Figure 1). *See, e.g.,* page 21, lines 18-22, page 22, lines 1-9 and Figure 1 of the present application. The second area comprises a silicon oxide structure (e.g., silicon oxide structures 110 in Figure 1) which is situated in a substrate (e.g., silicon substrate 101 in Figure 1). *See, e.g.,* page 9, lines 12-14 and Figure 1 of the present application.

The polycrystalline region (e.g., base contact 121 in Figure 1) and the single crystal region (e.g., base 120 in Figure 1) are characterized by a controlled deposition ratio which provides a polycrystalline deposition rate that is higher than a single crystal region deposition rate so as to cause a polycrystalline region thickness to be greater than a single crystal region thickness, thereby reducing the resistance of the polycrystalline region (e.g., base contact 121 in Figure 1). *See, e.g.,* page 23, lines 8-11 and 14-22, page 24, lines 1-4, and Figures 1 and 3 of the present application.

### **C. Claim 36**

Independent claim 36 defines a structure (e.g., structure 100 in Figure 1) comprising a single crystal silicon-germanium base (e.g., base 120 in Figure 1) having a first junction with a collector (e.g., collector 104 in Figure 1) and a second junction with an emitter (e.g., emitter 130 in Figure 1). The single crystal silicon-germanium base (e.g., base 120 in Figure 1) comprises kinetically controlled growth mode single crystal silicon-germanium and is grown at a first temperature and a first pressure of a precursor gas. *See, e.g.,* page 21, lines 3-5 and Figures 1 and 3 of the present application.

The structure (e.g., structure 100 in Figure 1) further includes a polycrystalline silicon-germanium base contact (e.g., base contact 121 in Figure 1) in electrical contact with the single crystal silicon-germanium base (e.g., base 120 in Figure 1). The polycrystalline silicon-germanium base contact (e.g., base contact 121 in Figure 1) comprises mass controlled growth mode polycrystalline silicon-germanium and is grown concurrently with the single crystal silicon-germanium base (e.g., base 120 in Figure 1) at the first temperature and the first pressure. *See*, e.g., page 20, lines 4-13, page 21, lines 10-12 and Figures 1 and 3 of the present application. The polycrystalline silicon-germanium base contact (e.g., base contact 121 in Figure 1) is situated over and in contact with a silicon oxide structure (e.g., silicon oxide structures 110 in Figure 1) which is situated in a substrate (e.g., silicon substrate 101 in Figure 1).

The base contact (e.g., base contact 121 in Figure 1) and the base (e.g., base 120 in Figure 1) are characterized by a controlled deposition ratio which provides a base contact deposition rate that is higher than a base deposition rate so as to cause a base contact thickness to be greater than a base thickness, thereby reducing the resistance of the base contact (e.g., base contact 121 in Figure 1). *See*, e.g., page 23, lines 8-11 and 14-22, page 24, lines 1-4, and Figures 1 and 3 of the present application.

#### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

- A. Claims 18-22, 24-40, and 42-45 under 35 U.S.C. §103(a) as being unpatentable over “Applicant’s Admitted Prior Art” in combination with U.S. Patent No.

5,321,302 to Shimawaki (hereinafter “Shimawaki”) and U.S. Patent No. 5,811,871 to Nakashima (hereinafter “Nakashima”).

### **ARGUMENT**

**A. Rejection of Claims 18-22, 24-40, and 42-45 Under 35 U.S.C. §103(a) as Being Unpatentable Over “Applicant’s Admitted Prior Art” in Combination With Shimawaki and Nakashima.**

Applicant respectfully submits that the present invention, as defined by independent claims 18, 25, and 36, is patentably distinguishable over “Applicant’s Admitted Prior Art,” Shimawaki, and Nakashima, either singly or in combination.

The present invention, as defined by independent claim 18, achieves a method for controlling the deposition of polycrystalline material independently of the deposition of single crystal material in a silicon-germanium nonselective epitaxial process. *See, e.g.,* page 21, line 22, page 22, lines 1-9 of the present application. Thus, by controlling the rate of polycrystalline silicon-germanium base contact deposition independently of the rate of single crystal silicon-germanium base deposition in a nonselective deposition process, the present invention advantageously provides a base contact thickness that can be selected to achieve a desirably low contact resistance while independently optimizing base thickness for a particular germanium concentration. *See, e.g.,* page 23, lines 20-22, page 24, lines 1-4 of the present application. In one embodiment, the present invention’s method for controlling the deposition of polycrystalline material independently of the

deposition of single crystal material in a silicon-germanium nonselective epitaxial process advantageously achieves a single crystal silicon-germanium base having a base thickness and situated on a single crystal silicon collector and a polycrystalline silicon-germanium contact having a base contact thickness and situated on a silicon oxide structure, wherein the base contact thickness is substantially greater than the base thickness. *See*, e.g., page 23, lines 14-19 of the present application.

However, the Examiner has stated that pages 2 through 5 of the present application (i.e. "Background Art" section of the present application) teach a structure comprising a single crystal silicon-germanium base and a polysilicon base contact, where the base contact and the base are inherently characterized by a deposition ratio. *See*, e.g., page 2 of the Non-Final Office Action dated July, 19, 2005. However, Applicant respectfully submits that pages 2 through 5 of the present application fail to teach, disclose, or remotely suggest a base and a base contact that are characterized by a controlled deposition ratio, where the base forms a base-collector junction with a single crystal silicon collector and the base contact is situated over and in contact with a silicon oxide structure in a substrate, and where the base contact thickness is greater than the base thickness, as specified in independent claim 18.

As discussed above, by achieving independent control of base thickness and base contact thickness by controlling the deposition ratio of polycrystalline silicon-germanium to single crystal silicon-germanium in a silicon-germanium nonselective epitaxial process, the present invention advantageously provides a sufficiently thick, low resistance base



contact and an optimized base thickness that does not exceed a critical thickness. In contrast, pages 2 through 5 of the present application disclose a conventional deposition process that results in a base and a base contact having a substantially similar thickness. As such, the conventional deposition process disclosed on pages 2 through 5 of the present application does not and cannot achieve a single crystal silicon-germanium base in electrical contact with a polycrystalline silicon-germanium base contact that is situated over and in contact with a silicon oxide structure, where the silicon oxide structure is situated in a substrate, where the base contact and the base are characterized by a controlled deposition ratio, and where the controlled deposition ratio causes a base contact thickness to be greater than a base thickness, as specified in independent claim 18.

In contrast to the present invention as defined by independent claim 18, Shimawaki does not teach, disclose, or suggest a base comprising kinetically controlled growth mode single crystal silicon-germanium and forming a base-collector junction with a single crystal silicon collector, a base contact comprising mass controlled growth mode polycrystalline silicon-germanium, where the base contact is situated over and in contact with a silicon oxide structure, where the silicon oxide structure is situated in a substrate, where the base contact and the base are characterized by a controlled deposition ratio, and where the controlled deposition ratio provides a base contact deposition rate that is higher than a base deposition rate so as to cause a base contact thickness to be greater than a base thickness. Shimawaki is directed to a heterojunction bipolar transistor having improved

cut-off frequency and maximum oscillation frequency. *See, e.g.,* Shimawaki, column 3, lines 25-28.

Shimawaki specifically discloses primary base layer 25 situated adjacent to secondary base layer 27, where primary base layer 25 is situated on a central zone of collector layer 24 and secondary base layer 27 is situated on a peripheral zone collector layer 24. *See, e.g.,* column 9, lines 23-39 and Figure 8 of Shimawaki. In Shimawaki, base electrode 32 is situated on secondary base layer 27 and emitter layer 26 is situated on primary base layer 25. *See, e.g.,* column 9, lines 27-57 and Figure 8 of Shimawaki. However, Shimawaki fails to teach, disclose, or remotely suggest a base comprising kinetically controlled growth mode single crystal silicon-germanium and forming a base-collector junction with a single crystal silicon collector, a base contact comprising mass controlled growth mode polycrystalline silicon-germanium, where the base contact is situated over and in contact with a silicon oxide structure, where the silicon oxide structure is situated in a substrate, where the base contact and the base are characterized by a controlled deposition ratio, and where the controlled deposition ratio provides a base contact deposition rate that is higher than a base deposition rate so as to cause a base contact thickness to be greater than a base thickness, as specified by independent claim 18. Thus, Shimawaki fails to cure the basic deficiencies of the conventional deposition process disclosed on pages 2 through 5 of the present application.

In contrast to the present invention, Nakashima is directed to an NPN bipolar transistor shown in Figure 4. Nakashima, however, does not teach, disclose, or even

suggest a base comprising kinetically controlled growth mode single crystal silicon-germanium, nor a base contact comprising mass controlled growth mode polycrystalline silicon-germanium as required by independent claims 18 and 36, and as similarly required by independent claim 25. As such, the disclosure in Nakashima provides no motivation to combine Nakashima with Shimawaki and “Applicant’s Admitted Prior Art.”

For the foregoing reasons, Applicant respectfully submits that the present invention, as defined by independent claim 18, is patentable over the conventional deposition process disclosed on pages 2 through 5 of the present application, Shimawaki, and Nakashima. As such, claims 19-22 and 24 depending from independent claim 18 are, *a fortiori*, also patentable over the conventional deposition process disclosed on pages 2 through 5 of the present application, Shimawaki, and Nakashima for at least the reasons presented above and also for additional limitations contained in each dependent claim.

Independent claims 25 and 36 include similar limitations as independent claim 18. Thus, for similar reasons discussed above, the present invention, as defined by independent claims 25 and 36 is also patentable. As such, claims 26-35 depending from independent claim 25, and claims 37-40 and 42-45 depending from independent claim 36 are, *a fortiori*, also patentable for at least the reasons presented above and also for additional limitations contained in each dependent claim.

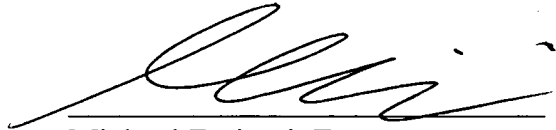
**CONCLUSION**

Based on the foregoing reasons, the present invention, as defined by independent claims 18, 25, and 36, and claims depending therefrom, is patentably distinguishable over the art cited by the Examiner. Thus, dependent claims 19-24, 26-35, and 37-45 pending in the present application are patentably distinguishable over the art cited by the Examiner. As such, and for all the foregoing reasons, an early allowance of claims 18-45 pending in the present application is respectfully requested.

This Appeal Brief is submitted herewith with an Appendix of the appealed claims and the requisite fee for filing the Appeal Brief.

Respectfully Submitted,  
FARJAMI & FARJAMI LLP

Date: 9/1/06

  
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Date of Deposit: 9/1/06

Christina Carter  
Name of Person Mailing Paper and/or Fee

Christina Carter 9/1/06  
Signature Date

**APPENDIX OF CLAIMS ON APPEAL**

**Claim 18:** A structure comprising:

a collector comprising a single crystal silicon;

a base comprising kinetically controlled growth mode single crystal silicon-germanium, wherein said base is grown at a first temperature and a first pressure of a precursor gas, said base and said collector forming a base-collector junction;

an emitter comprising polycrystalline silicon, said emitter and said base forming a base-emitter junction;

a base contact comprising mass controlled growth mode polycrystalline silicon-germanium, said base contact being in electrical contact with said base, wherein said base contact is grown at said first pressure and said first temperature of said precursor gas, wherein said base contact is situated over and in contact with a silicon oxide structure, and wherein said silicon oxide structure is situated in a substrate;

wherein said base contact and said base are characterized by a controlled deposition ratio, wherein said controlled deposition ratio causes said base contact to have a reduced resistance, and wherein said controlled deposition ratio provides a base contact deposition rate that is higher than a base deposition rate so as to cause a base contact thickness to be greater than a base thickness.

**Claim 19:** The structure of claim 18 wherein said base contact is grown concurrently with said base.

**Claim 20:** The structure of claim 18 wherein said precursor gas comprises germanium and hydrogen.

**Claim 21:** The structure of claim 18 wherein said first pressure is approximately 100 Torr.

**Claim 22:** The structure of claim 18 wherein said first temperature is approximately 650° C.

**Claim 23:** The structure of claim 18 wherein said base comprises approximately 8% germanium and 92% silicon.

**Claim 24:** The structure of claim 18 wherein said base contact resistance is approximately 650 ohms per micrometer.

**Claim 25:** A structure comprising:

a single crystal region situated over a first area, wherein said single crystal region comprises kinetically controlled growth mode single crystal silicon, wherein said single crystal region is grown at a first temperature and a first pressure of a precursor gas;

a polycrystalline region situated over and in contact with a second area, wherein said polycrystalline region comprises mass controlled growth mode polycrystalline silicon, wherein said polycrystalline region is grown at said first temperature and said first pressure concurrently with said single crystal region, wherein said second area comprises a silicon oxide structure, and wherein said silicon oxide structure is situated in a substrate;

wherein said polycrystalline region and said single crystal region are characterized by a controlled deposition ratio, wherein said controlled deposition ratio causes said polycrystalline region to have a reduced resistance, and wherein said controlled deposition ratio provides a polycrystalline region deposition rate that is higher than a single crystal region deposition rate so as to cause a polycrystalline region thickness to be greater than a single crystal region thickness.

**Claim 26:** The structure of claim 25 wherein said first area comprises exposed single crystal silicon and said second area does not comprise said exposed single crystal silicon.

**Claim 27:** The structure of claim 25 wherein said precursor gas comprises germanium and hydrogen.

**Claim 28:** The structure of claim 25 wherein said single crystal region comprises single crystal silicon-germanium and said polycrystalline region comprises polycrystalline silicon-germanium.

**Claim 29:** The structure of claim 25 wherein said single crystal region is in contact with said polycrystalline region.

**Claim 30:** The structure of claim 25 wherein said single crystal region is a base in a heterojunction bipolar transistor.

**Claim 31:** The structure of claim 25 wherein said polycrystalline region is a base contact in a heterojunction bipolar transistor.

**Claim 32:** The structure of claim 25 wherein said first temperature is approximately 650° C.



**Claim 33:** The structure of claim 25 wherein said first pressure is selected to promote said kinetically controlled growth mode over said first area and said mass controlled growth mode over said second area.

**Claim 34:** The structure of claim 33 wherein said first pressure is approximately 100 Torr.

**Claim 35:** The structure of claim 25 wherein said polycrystalline region grows approximately twice as fast as said single crystal region.

**Claim 36:** A structure comprising:

a single crystal silicon-germanium base having a first junction with a collector and a second junction with an emitter, wherein said single crystal silicon-germanium base comprises kinetically controlled growth mode single crystal silicon-germanium, wherein said single crystal silicon-germanium base is grown at a first temperature and a first pressure of a precursor gas;

a polycrystalline silicon-germanium base contact in electrical contact with said single crystal silicon-germanium base, wherein said polycrystalline silicon-germanium base contact comprises mass controlled growth mode polycrystalline silicon-germanium, wherein said polycrystalline silicon-germanium base contact is grown concurrently with said single crystal silicon-germanium base at said first temperature and said first pressure, wherein said polycrystalline silicon-germanium base contact is situated over and in

contact with a silicon oxide structure, and wherein said silicon oxide structure is situated in a substrate;

wherein said base contact and said base are characterized by a controlled deposition ratio, wherein said controlled deposition ratio causes said base contact to have a reduced resistance, and wherein said controlled deposition ratio provides a base contact deposition rate that is higher than a base deposition rate so as to cause a base contact thickness to be greater than a base thickness.

**Claim 37:** The structure of claim 36 wherein said precursor gas comprises germanium and hydrogen.

**Claim 38:** The structure of claim 36 wherein a deposition ratio of said polycrystalline silicon-germanium base contact to said single crystal silicon-germanium base is approximately 2 to 1.

**Claim 39:** The structure of claim 36 wherein said first temperature is approximately 650° C.

**Claim 40:** The structure of claim 36 wherein said first pressure is approximately 100 Torr.

**Claim 41:** The structure of claim 36 wherein said single crystal silicon-germanium base comprises approximately 8% germanium and approximately 92% silicon.

**Claim 42:** The structure of claim 36 wherein said polycrystalline silicon-germanium base contact has a base contact resistance value of approximately 400 ohms.

**Claim 43:** The structure of claim 36 wherein said single crystal silicon-germanium base is grown over exposed single crystal silicon and said polycrystalline silicon-germanium base contact is not grown over said exposed single crystal silicon.

**Claim 44:** The structure of claim 36 wherein said collector comprises single crystal silicon.

**Claim 45:** The structure of claim 36 wherein said emitter comprises polycrystalline silicon.

**EVIDENCE APPENDIX**

**(NONE)**

**RELATED PROCEEDINGS APPENDIX**

(NONE)



PTO/SB/17 (12-04)

Approved for use through 07/31/2006. OMB 0651-0032

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Effective on 12/8/2004.

Pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL

## For FY 2005

**Complete if Known**

|                      |               |
|----------------------|---------------|
| Application Number   | 10/054,438    |
| Filing Date          | 01/22/2002    |
| First Named Inventor | U'REN         |
| Examiner Name        | PHAM, LONG    |
| Art Unit             | 2814          |
| Attorney Docket No.  | 00CON134P-DIV |

☐ Applicant Claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT **\$500.00****METHOD OF PAYMENT (check all that apply)**

- ☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_
- ☒ Deposit Account Deposit Account Number: **50-0731** Deposit Account Name: **Farjami & Farjami LLP**
- For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)
- ☐ Charge fee(s) indicated below ☐ Charges fee(s) indicated below, except for the filing fee
- ☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

| Application Type | FILING FEES |                       | SEARCH FEES |                       | EXAMINATION FEES |                       | Fees Paid (\$) |
|------------------|-------------|-----------------------|-------------|-----------------------|------------------|-----------------------|----------------|
|                  | Fee (\$)    | Small Entity Fee (\$) | Fee (\$)    | Small Entity Fee (\$) | Fee (\$)         | Small Entity Fee (\$) |                |
| Utility          | 300         | 150                   | 500         | 250                   | 200              | 100                   |                |
| Design           | 200         | 100                   | 100         | 50                    | 130              | 65                    |                |
| Plant            | 200         | 100                   | 300         | 150                   | 160              | 80                    |                |
| Reissue          | 300         | 150                   | 500         | 250                   | 600              | 300                   |                |
| Provisional      | 200         | 100                   | 0           | 0                     | 0                | 0                     |                |

**2. EXCESS CLAIM FEES**

| Fee Description   | Fee (\$) | Small Entity Fee (\$) |
|---|----------|-----------------------|
| Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent            | 50       | 25                    |
| Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent | 200      | 100                   |
| Multiple dependent claims   | 360      | 180                   |

**Total Claims**      **Extra Claims**      **Fee (\$)**      **Fee Paid (\$)**      **Multiple Dependent Claims**

- 20 or HP = 0 x \$50.00 = \$ 0.00      **Fee (\$)**      **Fee Paid (\$)**

HP = highest number of total claims paid for, if greater than 20      \$360.00

**Indep. Claims**      **Extra Claims**      **Fee (\$)**      **Fee Paid (\$)**

- 3 or HP = 0 x \$200.00 = \$ 0.00

HP = highest number of independent claims paid for, if greater than 3

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41 (a)(1)(G) and 37 CFR 1.16(s).

|              |              |  |          |               |
|--------------|--------------|--|----------|---------------|
| Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof | Fee (\$) | Fee Paid (\$) |
| - 100 = 0    | / 50 = 0     | (round up to a whole number) x                   | \$250.00 | \$ 0.00       |

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: **Filing a brief in support of an appeal****\$500.00****SUBMITTED BY**

|                   |                              |  |                                 |
|-------------------|------------------------------|--|---------------------------------|
| Signature         |                              | Registration No. (Attorney/Agent) <b>38135</b> | Telephone <b>(949) 282-1000</b> |
| Name (Print/Type) | <b>Michael Farjami, Esq.</b> | Date <b>9/1/06</b>                             |                                 |

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.